Complete Summary

GUIDELINE TITLE

Urinary incontinence in women.

BIBLIOGRAPHIC SOURCE(S)

Finnish Medical Society Duodecim. Urinary incontinence in women. In: EBM Guidelines. Evidence-Based Medicine [CD-ROM]. Helsinki, Finland: Duodecim Medical Publications Ltd.; 2004 Aug 26 [Various].

GUIDELINE STATUS

This is the current release of the guideline.

This guideline updates a previous version: Finnish Medical Society Duodecim. Urinary incontinence in women. In: EBM Guidelines. Evidence-Based Medicine [CD-ROM]. Helsinki, Finland: Duodecim Medical Publications Ltd.; 2004 May 21 [Various].

COMPLETE SUMMARY CONTENT

SCOPE

DISEASE/CONDITION(S)

Urinary incontinence, including:

- Stress incontinence
- Urge incontinence
- Mixed incontinence

GUIDELINE CATEGORY

Diagnosis
Management
Treatment

CLINICAL SPECIALTY

Family Practice
Internal Medicine
Obstetrics and Gynecology
Urology

INTENDED USERS

Health Care Providers
Physicians

GUIDELINE OBJECTIVE(S)

Evidence-Based Medicine Guidelines collects, summarizes, and updates the core clinical knowledge essential in general practice. The guidelines also describe the scientific evidence underlying the given recommendations.

TARGET POPULATION

Women with urinary incontinence

INTERVENTIONS AND PRACTICES CONSIDERED

Diagnosis

1. Urine culture to exclude urinary tract infection
2. A questionnaire to help differentiate between stress incontinence and urge incontinence
3. Physical examination and possibly endoscopy to exclude tumors
4. Specialized investigations (ultrasonography, radiography, urodynamics) as indicated
5. A questionnaire to assess the seriousness of the problem to help determine the urgency of investigations and treatment

Treatment; Management

1. Weight reduction
2. Exercises to strengthen the muscles of pelvic floor
3. Bladder education (normalizing the micturition interval)
4. Pharmacologic management (anticholinergenic medication [tolterodine, oxybutynin, trospium chloride]; local oestrogen therapy [a vaginal suppository or tablet]; adrenergic drugs; periurethral injection of established manufactured bulking agents)
5. Electrical stimulation

6. Surgical treatment (e.g., colposuspension; tension-free vaginal tape [TVT]; transobturator tape [TOT]; operation aimed at enlarging the bladder) according to the judgment of a urogynaecologist
7. Aids (bandages, diapers, urinals, vaginal bullets, cones, and tampons, and plastic bed sheets) provided and introduced to patient by a specialized nurse educator
8. Prompted voiding

MAJOR OUTCOMES CONSIDERED

Symptoms of urinary incontinence (objective and subjective measures)

METHODOLOGY

METHODS USED TO COLLECT/SELECT EVIDENCE

Hand-searches of Published Literature (Primary Sources)
Hand-searches of Published Literature (Secondary Sources)
Searches of Electronic Databases

DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

The evidence reviewed was collected from the Cochrane database of systematic reviews and the Database of Abstracts of Reviews of Effectiveness (DARE). In addition, the Cochrane Library and medical journals were searched specifically for original publications.

NUMBER OF SOURCE DOCUMENTS

Not stated

METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Weighting According to a Rating Scheme (Scheme Given)

RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Levels of Evidence

A. Strong research-based evidence. Multiple relevant, high-quality scientific studies with homogenic results.
B. Moderate research-based evidence. At least one relevant, high-quality study or multiple adequate studies.
C. Limited research-based evidence. At least one adequate scientific study.
D. No research-based evidence. Expert panel evaluation of other information.

METHODS USED TO ANALYZE THE EVIDENCE

Review of Published Meta-Analyses
Systematic Review

DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

Not stated

METHODS USED TO FORMULATE THE RECOMMENDATIONS

Not stated

RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Not applicable

COST ANALYSIS

A formal cost analysis was not performed and published cost analyses were not reviewed.

METHOD OF GUIDELINE VALIDATION

Peer Review

DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

Not stated

RECOMMENDATIONS

MAJOR RECOMMENDATIONS

The levels of evidence [A-D] supporting the recommendations are defined at the end of the "Major Recommendations" field.

Basic Rule

- Differentiate between the two main types of incontinence: stress incontinence and urge incontinence

Types of Incontinence

1. Loss of urine on exertion (stress incontinence) is the problem in 3/4 of adult incontinent patients.
2. Urge incontinence is due to bladder dysfunction where the need to void is so sudden that loss of urine occurs before the patient makes it to the toilet. It occurs typically in elderly women after menopause, but also in young women.
3. A combination of the two types is called mixed incontinence.

4. Other types such as overflow, which occurs after surgery, and reflex incontinence rarely occur in women.

In institutionalized patients, incontinence often is caused by cerebral ischaemia or dementia.

Epidemiology

- The prevalence in adult women (of 25 to 55 years of age) is about 20%. Every second patient conceals her problem.
    - The prevalence is 15% in women of 35, and 28% in women of 55.
- After retirement, about 50% of women and men suffer from urinary incontinence.

Aetiology

- In stress incontinence the pelvic floor may be weakened because of excessive body weight (>20% overweight), pregnancy, deliveries, and heavy work. Stress incontinence may also be caused by connective tissue weakness, asthma, or muscle-relaxant drug such as prazosin.
- Urge incontinence is a consequence of chronic bladder irritation. It can be related to
    - Sequelae of urinary tract infections
    - Past surgery for incontinence
    - Oestrogen deficiency after menopause
    - Diabetes or multiple sclerosis
    - Use of medicines, such as neuroleptics and diuretics

Investigations

- Exclude urinary tract infection by urine culture.
- A questionnaire differentiates fairly well between stress incontinence and urge incontinence.
- Exclude tumours by examination (and endoscopy if required).
- A questionnaire assessing the seriousness of the problem helps in determining the urgency of investigations and treatment.

Indications for Specialized Investigations (Ultrasonography, Radiography, Urodynamics)

- Annoying symptoms, especially if dominated by urge incontinence
- Recurrence of symptoms after surgery

Conservative Treatment

- Postmenopausal women with minimal symptoms should try local oestrogen therapy (a vaginal suppository or tablet once or twice a week) (Fantl, Cardozo, & McClish, 1994; DARE-953435, 1999; Zullo et al., 1998; DARE-983808, 2000) [B]. Local oestrogen is more effective than systemic oestrogen for either type of incontinence.
- Patients with mild stress incontinence

        - Weight reduction
        - Exercises to strengthen the muscles of pelvic floor (Hay-Smith et al., "Pelvic floor muscle training," 2002; Berghmans et al., 1998; DARE-981413, 2000) [A]
- Patients with mild urge incontinence
    - Bladder education (normalizing the micturition interval) ("Bladder training," 2002; Berghmans et al., 2000; DARE-20000524, 2001) [B]
    - Anticholinergic medication (Hay-Smith et al., "Anticholinergic drugs," 2002) [A] has been used.
        - The starting dose of oxybutynin is small (2.5–3 mg); the dose should be raised individually to the maximum of 5 mg x 3/day. The new slow release tablet (10 mg) taken once daily causes less side effects.
        - Tolterodine is as effective as oxybutynin in urge incontinence, but may have fewer anticholinergic side effects (dryness of the mouth and visual disturbances). The dose is 2 mg x 2 from the start.
        - Trospium chloride is the newest drug for urge incontinence. The dose is 20 mg x 1-2/day. The effect is at least equal to the other drugs but it may have even fewer side effects.
- Electrical stimulation is worth trying in both types of incontinence (in stress incontinence the muscles of the pelvic floor are stimulated, in urge incontinence the overactivity of bladder muscles is decreased) (Bo, 1998; DARE-981604, 2000) [D].

Surgical Therapy

- Stress incontinence may be treated surgically according to the judgment of a urogynaecologist (Black & Downs, 1996) [C]).
    - Burch colposuspension was the golden standard up to the end of the 1990s (Burch, 1968). It can also be performed endoscopically quite easily either using a mesh or stitches.
    - The most frequently used method nowadays is tension-free vaginal taping (TVT), which is rather simple and can even be performed under local anaesthesia. The results are at least as good as with the Burch method (Ulmsten, Johnson, & Rezapour, 1999). An even newer procedure, transobturator taping (TOT) seems to replace TVT.
- In urge incontinence, surgery usually is not effective. In extreme cases, an operation aimed at enlarging the bladder may be indicated by a specialist.
- The treatment for mixed incontinence is selected according to the dominant type of incontinence.

Aids

- Aids: bandages, diapers, urinals, and plastic bed sheets prevent leaking. Vaginal bullets and cones (Herbison, Plevnik, & Mantle, 2002) [A], and vaginal tampons help to find the muscles in pelvic floor muscle training and prevent incontinence in short-lasting physical strain. A specialized nurse is responsible for supplying the aids and educating the patient.

Related Evidence

- Hysterectomy may increase the odds of developing incontinence up to 60% (Brown et al., 2000; DARE-20008541, 2001) [C].
- Exercises with myofeedback may be more effective than exercises alone for stress urinary incontinence, but the evidence is insufficient for reliable conclusions (De Kruif & Van Wegen, 1996; DARE-965250, 1999) [D].
- There is some evidence suggesting less urinary incontinence after preventive pelvic floor muscle training in childbearing women but the evidence is insufficient (Hay-Smith, Herbison, & Morkved, 2002) [C].
- There was some suggestive evidence that prompted voiding reduces incontinence episodes in the short term (Eustice, Roe, & Paterson, 2002) [C].
- There is not enough evidence to draw firm conclusions about the superiority of certain types of absorbent products (Shirran & Brazzelli, 2003) [D].
- Even single daily intravaginal oestriol (0.5 mg) in postmenopausal women does not increase the risk of endometrial proliferation or hyperplasia (Vooijs & Geurts, 1995; DARE-952833, 1999) [B].
- Adrenergic drugs appear to be more effective than placebo in reducing incontinence episodes and subjective symptoms (Alhasso et al., 2003) [B].
- Abdominal retropubic suspension appears to be better than anterior vaginal repair for subjective cure (Glazener & Cooper, "Anterior vaginal repair," 2002) [B].
- There is some evidence that laparoscopic colposuspension may have poorer results than open colposuspension. If laparoscopic colposuspension is performed, two paravaginal sutures appear to be more effective than one (Moehrer et al., 2002) [C].
- There is not enough evidence to judge whether suburethral slings are better or worse than other surgical or non-surgical managements (Bezerra & Bruschini, 2002) [C].
- Bladder neck needle suspension surgery is probably not as good as open abdominal retropubic suspension for the treatment of primary genuine stress urinary incontinence in terms of lower cure rates and higher morbidity (Glazener & Cooper, "Bladder neck needle," 2002) [C].
- Periurethral injection of established manufactured bulking agents appears to result in subjective and objective short term improvement of symptomatic female stress urinary incontinence in adults (Pickard et al., 2003) [C].
- Open retropubic colposuspension appears to be the most effective treatment modality for stress urinary incontinence especially in the long term (Lapitan, Cody, & Grant, 2003) [B].

Definitions:

Levels of Evidence

A. Strong research-based evidence. Multiple relevant, high-quality scientific studies with homogenic results.
B. Moderate research-based evidence. At least one relevant, high-quality study or multiple adequate studies.
C. Limited research-based evidence. At least one adequate scientific study.
D. No research-based evidence. Expert panel evaluation of other information.

CLINICAL ALGORITHM(S)

None provided

EVIDENCE SUPPORTING THE RECOMMENDATIONS

REFERENCES SUPPORTING THE RECOMMENDATIONS

References open in a new window

TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

Concise summaries of scientific evidence attached to the individual guidelines are the unique feature of the Evidence-Based Medicine Guidelines. The evidence summaries allow the clinician to judge how well-founded the treatment recommendations are. The type of supporting evidence is identified and graded for select recommendations (see the "Major Recommendations" field).

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

POTENTIAL BENEFITS

This guideline may help the clinician differentiate between types of incontinence in women and select appropriate interventions to reduce or eliminate symptoms of urinary incontinence.

Subgroups Most Likely to Benefit

Postmenopausal women are most likely to benefit from estrogen therapy.

POTENTIAL HARMS

- Dry mouth is a common side effect of anticholinergic drug therapy.
- Published studies have reported that electrical stimulation produced side effects in about half of the women treated.

IMPLEMENTATION OF THE GUIDELINE

DESCRIPTION OF IMPLEMENTATION STRATEGY

An implementation strategy was not provided.

INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

IOM CARE NEED

Getting Better
Living with Illness

IOM DOMAIN

Effectiveness
Patient-centeredness

IDENTIFYING INFORMATION AND AVAILABILITY

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ADAPTATION

Not applicable: The guideline was not adapted from another source.

DATE RELEASED

2001 Jan 4 (revised 2004 Aug 26)

GUIDELINE DEVELOPER(S)

Finnish Medical Society Duodecim - Professional Association

SOURCE(S) OF FUNDING

Finnish Medical Society Duodecim

GUIDELINE COMMITTEE

Editorial Team of EBM Guidelines

COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE

Primary Author: Juha Mäkinen

FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

Not stated

GUIDELINE STATUS

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GUIDELINE AVAILABILITY

This guideline is included in a CD-ROM titled "EBM Guidelines. Evidence-Based Medicine" available from Duodecim Medical Publications, Ltd, PO Box 713, 00101 Helsinki, Finland; e-mail: info@ebm-guidelines.com; Web site: www.ebm-guidelines.com.

AVAILABILITY OF COMPANION DOCUMENTS

None available

PATIENT RESOURCES

None available

NGC STATUS

This summary was completed by ECRI on December 17, 2002. The information was verified by the guideline developer as of February 7, 2003. This summary was updated by ECRI on April 2, 2004, October 5, 2004, and February 22, 2005.

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